

Work Order ID 101496

101496

Page 1

May-13-13 1:03:10 PM

Item ID: DSI 9052-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Pod Quick Release

Start Date: 5/13/13 Start Qty: 100 *1*

Cust Item ID:

Required Date: 5/13/13 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: MLS Date: 13-05-16 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
DSI 9052	E

100

0.00

100

DOCUMENT CONTROL

DC

Memo M.D.

0.00

Document Control

Photocopy bluefile & type labels per PPP 9052-013 CHG001

J 4/28 MLS 13-7-22
(2)

110

Pick Kit

0.00


110

Packaging

Memo

0.00

Packaging

2x M.D. 13-07-22


120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

J _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misread
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Offset
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

Work Order ID 101496

101496

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May-13-13 1:03:10 PM

Item ID: DSI 9052-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Pod Quick Release

Start Date: 5/13/13 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 5/13/13 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging					2		13/7/25	sy
Packaging	Memo	0.00		46					
Packaging	Identify and pack for shipping as per PPP D9052-013			030					
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

u13-07-26

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Picklist Print

May-13-13 1:03:09 PM

Page 1

Work Order ID: 101496
 Parent Item: DSI 9052-013
 Parent Item Name: Pod Quick Release
 Comments: IPP Rev:A02.05.15New IssueNG

Start Date: 5/13/13
 Start Qty: 1.00
 Required Date: 5/13/13
 Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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BLRS-010 Pip Pin		Purchased	No			110	Each	24.0000	1	12		M.H. 13-07-22	
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Sh B 20

Location	Loc Qty	Loc Code
FG	4	
121374	4	
ST282	20	
122730	20	

BLRS-020 Pip Pin		Purchased	No			110	Each	30.0000	3	16		M.H.	
---------------------	--	-----------	----	--	--	-----	------	---------	---	----	--	------	--

Sh B 20

Location	Loc Qty	Loc Code
FG	4	
122168	4	
ST282	26	
123149	4	
125499	12	
125616	10	

6x

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

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QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
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<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
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<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
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		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-607 REV. F OR LATER REV.
(REF. CANADIAN STC: SH94-14, REF. FAA STC: SR00213NY)

AND TO AMEND INSTALLATION DRAWING D350-602 REV. E OR LATER REV.
(REF. CANADIAN STC: SH93-97, REF. FAA STC: SR01144NY)

PURPOSE: TO ALLOW SUBSTITUTION OF THE BASKET/ POD ATTACHMENT BOLTS WITH QUICK RELEASE PINS

THE AN4-12A / AN4-15A / AN4-16A BOLTS USED ON D2230-1 CLAMPS MAY BE REPLACED WITH STAINLESS STEEL POSITIVE LOCKING QUICK RELEASE PINS WITH A MINIMUM DOUBLE SHEAR STRENGTH OF 2400 LBS AND 0.25 INCH DIAMETER.

BOLT	MIN GRIP	POSSIBLE QUICK RELEASE PIN REPLACEMENT
AN4-12A	1.0"	AVIBANK: BLC4B10S, BLC4TA10S, BLC4R10S, BLC4LA10S MS NUMBER: MS17984C410, MS17985C410, MS17986C410, MS17987C410 REID: BLRS-010, BLBS-010
AN4-15A / AN4-16A	1.3"	AVIBANK: BLC4B13S, BLC4TA13S, BLC4R13S, BLC4LA13S MS NUMBER: MS17984C413, MS17985C413, MS17986C413, MS17987C413 REID: BLRS-020, BLBS-020

THE FOLLOWING OPTIONAL KITS ARE AVAILABLE FROM DART TO PROVIDE QUICK RELEASE CAPABILITY. DART HELI-UTILITY-BASKETS™ D350-607-041 @ CHG 008, D350-607-043 @ CHG 005, D350-607-045 @ CHG 003, D350-607-047 @ CHG 003, OR LATER CHANGE NUMBERS, OR KITS MODIFIED PER SERVICE INSTRUCTION DSI 9342 USE AN4-15A BOLTS AND SHOULD PURCHASE THE DSI-9052-013 KIT. EARLIER CHANGE NUMBERS THAT HAVE NOT BEEN MODIFIED PER SERVICE INSTRUCTION DSI 9342 USE AN4-12A BOLTS AND SHOULD PURCHASE THE DSI-9052-011 KIT.

QTY -011	QTY -013	PART NUMBER	DESCRIPTION
X		DSI-9052-011	QUICK RELEASE KIT, FOR D350-607-041 (CHG ≤007) / -043 (CHG ≤004) / -045 (CHG ≤002) / -047 (CHG ≤002)
	X	DSI-9052-013	QUICK RELEASE KIT, FOR D350-602-011/-013/-014 & D350-607-041 (CHG 008) / -043 (CHG 005) / -045 (CHG 003) / -047 (CHG 003)
4	1	BLRS-010	QUICK RELEASE PIN (1.0" GRIP)
	3	BLRS-020	QUICK RELEASE PIN (1.5" GRIP)


IT IS ACCEPTABLE TO LEAVE THE D2230-1/-3 CLAMPS INSTALLED ON THE CROSSTUBES WHEN THE BASKET OR POD IS REMOVED. WEIGHT & BALANCE, FOR CLAMPS ONLY, IS 1.8lb (0.82kg) @ STA 135in (3.43m) & BL ±36in (±0.91m).

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 09.06.23
CERT. NO.: SH94-14 / SH93-97
ISSUE NO.: 4 / 4

E	-013 KIT NOW APPLICABLE TO NEW D350-607 KITS	CP	09.06.23
D	ADD CLAMPS ONLY NOTE	KJ	04.03.23
C	ADD DSI 9052-013	CP	03.12.11
B	ADD PART NUMBERS	BW	96.11.13
A	NEW ISSUE	MM	96.11.04
REV.	DESCRIPTION	BY	DATE
DESIGN	MM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. E
MFG. APPR.	N/A	DSI 9052	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		QUICK PIN REPLACEMENT	NTS
DATE	09.06.23	COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	